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# **Report Summary:**

<u>ghlights</u>	<u>January 1, 2013</u>	<u>January 1, 2014</u>
Contributions		
Funding Schedule FY 2015	\$10,137,837	\$10,000,000
Funding Schedule FY 2016	10,485,828	10,500,000
Funded Ratios		
GAS No. 25	58.8%	61.0%
<u>Participants</u>		
Actives	682	698
Retirees and Beneficiaries	482	466
Inactives	98	99
Disabled	<u>110</u>	<u>111</u>
Total	1,372	1,374
<u>Payroll</u>		
Payroll of Active Members	\$35,211,907	\$37,863,532
Average Payroll	51,630	54,246
Normal Cost		
Employer	\$2,720,240	\$2,832,477
Employee	2,928,422	3,144,144
Administrative Expenses	325,000	325,000
Total	\$5,973,662	\$6,301,621
Actuarial Accrued Liabilities		
Actives	\$120,600,001	\$130,534,678
Retirees, Beneficiaries, Disabilities and Inactives	137,095,430	137,992,970
Total	\$257,695,431	\$268,527,648
Actuarial Value of Assets	\$151,438,271	\$163,680,899
Unfunded Actuarial Accrued Liabilities	\$106,257,160	\$104,846,749

## **Introduction**

This report presents the findings of an actuarial valuation as of January 1, 2014, of Medford Contributory Retirement System.

The actuarial valuation is based on:

- Provisions Chapter 32 of the Massachusetts General Laws, "M.G.L", as of January 1, 2014.
- Employee data provided by the Retirement Board
- Asset information reported to the Public Employee Retirement Administration Commission by the City of Medford Contributory Retirement System
- Actuarial assumptions approved by the Retirement Board

The valuation and appropriation forecast are prepared in accordance with Chapter 32 of the M.G.L. as of January 1, 2014.

The valuation and forecast do not account for:

- Any subsequent changes in the law
- Chapter 32 of the M.G.L., Section 3(8)(c) transfers between systems
- State-mandated benefits
- Cost-of-living increases granted to retired members between 1982 and 1997. The
  cost of these benefits has been assumed by the State under Proposition Two and
  One-Half.

## **Actuarial Experience**

In performing the actuarial valuation, various assumptions are made regarding such factors as mortality, retirement, disability, and withdrawal rates as well as both payroll, salary increases, and investment returns. A comparison of the current valuation and the prior valuation is made to determine how closely actual experience corresponded to anticipated occurrences. This analysis of the system provides insight into the overall quality of the actuarial assumptions and helps explain any change in the annual appropriation.

During the last year, the total unfunded actuarial accrued liability decreased by 1.3% to \$104,846,749. The decrease is the result of net favorable actuarial experience during the preceding years. The sources of actuarial (gains) and losses are as follows:

Assets	(6,938,538)
Salary Increases	1,853,392
New Participants	679,173
Active - Retirements	(1,650,820)
Active - Terminations	721,563
Active - Mortality	(49,634)
Active - Disabilities	716,748
Inactive - Mortality and data adjustments	1,748,237
Other, includes data adjustments, buybacks, interest on ASF	(209,300)
Total Actuarial (Gain) / Loss	(3,129,179)

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## **Actuarial Costs and Liabilities:**

## **Normal Costs**

The normal cost is the sum of the individual normal costs determined for each member as if the assumptions underlying the cost determinations had been exactly realized. An individual normal cost represents that part of the cost of a member's future benefits which are assigned to the current year as if the costs are to remain level as a percentage of the member's pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and terminations) are included in this calculation. Anticipated employee contributions to be made during the year are subtracted from the total normal cost to determine employer normal cost. The total normal cost is divided by total payroll to determine the normal cost as a percent of pay. The normal cost is shown in Table I.

Tab	le I	
	<u>January 1, 2013</u>	January 1, 2014
Superannuation	\$3,941,312	\$4,139,138
Termination	270,661	287,550
Death	225,293	237,582
Disability	1,211,396	1,312,351
Administrative Expenses	<u>\$325,000</u>	\$325,000
Total Normal Cost	\$5,973,662	\$6,301,621
% of Pay	17.0%	16.6%
Employee Contributions	\$2,928,422	\$3,144,144
% of Pay	8.3%	8.3%
Employer Normal Cost	\$3,045,240	\$3,157,477
% of Pay	8.6%	8.3%

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## **Present Value of Actuarial Accrued Liabilities**

The actuarial accrued liabilities (AAL) represents today's value of all benefits based on the past service of the actives and inactives. The AAL can be compared to the assets to determine the funded status of the Plan. The value of these earned benefits is shown in Table II below.

Table II		
	January 1, 2013	January 1, 2014
Actives		
Superannuations	\$111,607,912	\$121,292,297
Termination	898,501	906,994
Death	2,748,542	2,905,316
Disability	5,345,046	5,430,071
Retirees and Inactives		
Retirees and Beneficiaries	\$94,900,038	\$95,508,883
Terminated (Refund)	1,437,655	1,236,647
Disabled	40,757,737	41,247,440
Total	\$257,695,431	\$268,527,648

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## **Present Value of Future Benefits**

The present value of future benefits represents today's value of all benefits earned by the inactive participants as well as all benefits earned and expected to be earned in the coming years by the active participants. The difference between the present value of future benefits and the present value of actuarial accrued liabilities is the value of benefits to be earned in the coming years. The value of the total expected benefits is shown in Table III.

Table III		
	January 1, 2013	January 1, 2014
Actives		
Superannuation	\$138,930,691	\$149,800,956
Termination	1,980,577	2,098,135
Death	4,299,529	4,569,490
Disability	14,836,359	15,842,379
Retirees and Inactives		
Retirees and Beneficiaries	\$94,900,038	\$95,508,883
Terminated (Refund)	1,437,655	1,236,647
Disabled	40,757,737	41,247,440
Total	\$297,142,586	\$310,303,930

# **Funded Status and Appropriations:**

## **Market Value of Plan Assets**

The trust fund composition on a market value basis is shown in Table IV.

Та	ble IV	
	<u>January 1, 2013</u>	January 1, 2014
Cash equivalents	\$242,309	\$2,861,479
Short term investments	4,253,302	0
Fixed income securities	49,336,868	49,427,981
Equities	24,976,217	26,645,173
International	49,870,624	58,618,251
Real Estate	8,325,489	9,175,149
Venture Capital	0	0
Other	19,318,634	22,652,827
Accounts receivable	0	363,218
Accounts payable	(1,284,438)	(1,896,468)
Accrued income	<u>116,043</u>	<u>107,086</u>
Total Market Value	\$155,155,048	\$167,954,696
Total Actuarial Value	\$151,438,271	\$163,680,899

## **Actuarial Value of Assets**

The actuarial value of assets is determined by projecting the market value of assets as of the beginning of the prior plan year with the assumed rate of return during that year (7.5%) and accounting for deposits and disbursements with interest at the assumed rate of return. An adjustment is then applied to recognize the difference between the actual investment return and expected return over a five year period. This preliminary actuarial value is not allowed to differ from the market value of assets by more than 15%. The calculation of the actuarial value of assets as of January 1, 2014 is presented in Table V.

#### Table V

		<u>January 1, 2014</u>
(1)	Market value at January 1, 2013	\$155,155,048
(2)	2013 Contributions	\$13,692,175
(3)	2013 Payments	(\$17,074,901)
(4)	Net interest adjustment at 7.5% on (1), (2), and (3) to December 31, 2013	\$11,509,776
(5)	Expected market value on January 1, 2014	\$163,282,098
	(1) + (2) + (3) + (4)	
(6)	Actual market value on January 1, 2014	\$167,954,696
(7)	2013 (Gain) / Loss	(\$4,672,598)
(8)	80% of 2013 (Gain) / Loss	(\$3,738,078)
(9)	2012 (Gain) / Loss	(\$5,911,419)
(10)	60% of 2012 (Gain) / Loss	(\$3,546,851)
(11)	2011 (Gain) / Loss	\$10,678,935
(12)	40% of 2011 (Gain) / Loss	\$4,271,574
(13)	2010 (Gain) / Loss	(\$6,302,207)
(14)	20% of 2010 (Gain) / Loss	(\$1,260,441)
(15)	Actuarial value on January 1, 2014, $(6) + (8) + (10) + (12) + (14)$	\$163,680,899
	but not less than 85% nor greater than 115% of (6)	\$163,680,899
(16)	Ratio of actuarial value to market value	97.46%
(17)	Actuarial Value Return for 2012	3.08%
(18)	Actuarial Value Return for 2013	10.43%
(19)	Market Value Return for 2012	11.70%
(20)	Market Value Return for 2013	10.54%

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## **Unfunded Actuarial Accrued Liabilities**

Under the Entry Age Normal Actuarial Cost Method, the Actuarial Accrued Liability represents what the accumulated assets would have been as of the valuation date if:

- current plan provisions and assumptions had always been in effect,
- experience conformed exactly to assumptions, and
- the normal cost had been contributed each year since inception.

The actuarial value of the Fund's assets as of the end of the prior year are subtracted from the Actuarial Accrued Liability (AAL) to determine the Unfunded Actuarial Accrued Liability (UAAL) as of the valuation date. Over time, annual pension contributions will accumulate Plan assets equal to the AAL, and the UAAL will be eliminated. Thereafter, annual contributions equal to the normal cost will keep the Plan's assets and liabilities in balance. The UAAL is developed in Table VI.

	Table VI		
		January 1, 2013	January 1, 2014
Actuarial Accrued Liability		\$257,695,431	\$268,527,648
Actuarial Assets		151,438,271	163,680,899
Unfunded Actuarial Accrued Liability	ty	\$106,257,160	\$104,846,749
Funded Status		58.8%	61.0%

## **Appropriations**

The pension appropriation for the upcoming fiscal years have been calculated in accordance with the requirements set forth in Sections 22D and 22F of Chapter 32 of the Massachusetts General Laws. These amounts were calculated to comply with the June 30, 2040, full funding mandate for all accrued liabilities. The pension appropriation is the sum of the:

- Employer normal cost,
- Increasing amortization of the unfunded actuarial accrued liability by June 30, 2036 \$101,174,474 over 22 years with 4.0% increasing payments
- Level amortization of the 2002 Early Retirement Incentive by June 30, 2026
   \$65,950 over 12 years
- Increasing amortization of the Funding Holiday by June 30, 2023 \$3,080,088 over 9 years with 4.5% increasing payments
- Level amortization of the 2010 Early Retirement Incentive by June 30, 2022
   \$ 526,236 over 8 years
- Interest adjustment for payments deposited on August 1st.

The Board voted to set the FYE15's appropriation at \$10,000,000, and each successive year \$500,000 higher through FYE18. The pension appropriation is shown in Table VII.

Table VII		
	January 1, 2013	January 1, 2014
Normal cost	\$3,045,240	\$3,157,477
Amortization payment of the unfunded accrued liability	4,845,053	6,368,737
Amortization payment of 2002 ERI liability	7,931	7,931
Amortization payment of 2010 ERI liability	0	83,575
Amortization payment of Funding Holiday and ERI	<u>365,775</u>	<u>382,235</u>
Total cost	\$8,264,000	\$9,999,955
% of Pay	23.5%	26.4%
Fiscal 2015 cost	\$10,137,837	\$10,000,000
Fiscal 2016 cost	\$10,485,828	\$10,500,000

## **Appropriation Forecast**

The following exhibit forecasts employer and employee contributions over the next 32 years under the adopted funding schedule.

Note that the forecast is based upon an "open group" method. This method assumes that sufficient employees will be hired each year to keep the number constant. The total payroll of the system is expected to increase 4.5% per year. The employee contribution rate is expected to increase to 10.5% by 2034 as members contributing base percentages 5%, 7%, and 8% are replaced by new members, whose base contribution is 9%. Payments are assumed to be made at the beginning of the year.

The employer total cost is expected to increase during the next 24 years until the unfunded liabilities are completely paid off, at which time only the normal cost will remain. The total cost represents 26.4% of payroll, decreasing to 26.0% by the time the unfunded liabilities are fully paid off, leaving only a normal cost of 6.4% thereafter. The decrease in the cost as a percentage of payroll is a result of the increase in member deductions.

## **Appropriation Forecast**

Fiscal			Employer	Amortization	Employer	Employer	
Year		Employee	Normal Cost	Payments	Total Cost	<b>Total Cost</b>	Funded
<b>Ending</b>	Payroll*	Contribution	with Interest	with Interest	with Interest	% of Payroll	Ratio %**
2015	\$37,863,532	\$3,144,144	\$3,293,531	\$6,706,469	\$10,000,000	26.4	60.8
2016	\$39,188,756	\$3,299,485	\$3,361,557	\$7,138,443	\$10,500,000	26.8	61.8
2017	\$40,560,362	\$3,461,849	\$3,430,309	\$7,569,691	\$11,000,000	27.1	62.6
2018	\$41,979,975	\$3,631,536	\$3,499,757	\$8,000,243	\$11,500,000	27.4	63.5
2019	\$43,449,274	\$3,808,861	\$3,569,864	\$8,410,368	\$11,980,232	27.6	64.5
2020	\$44,969,998	\$3,994,150	\$3,640,590	\$8,745,342	\$12,385,932	27.5	65.5
2021	\$46,543,948	\$4,187,743	\$3,711,895	\$9,093,822	\$12,805,717	27.5	66.6
2022	\$48,172,987	\$4,389,995	\$3,783,731	\$9,456,353	\$13,240,084	27.5	67.8
2023	\$49,859,041	\$4,601,274	\$3,856,049	\$9,746,326	\$13,602,375	27.3	69.1
2024	\$51,604,108	\$4,821,965	\$3,928,794	\$9,546,170	\$13,474,964	26.1	70.5
2025	\$53,410,251	\$5,052,468	\$4,001,908	\$9,927,686	\$13,929,594	26.1	71.9
2026	\$55,279,610	\$5,293,199	\$4,075,326	\$10,324,462	\$14,399,788	26.0	73.4
2027	\$57,214,396	\$5,544,593	\$4,148,982	\$10,728,837	\$14,877,819	26.0	75.0
2028	\$59,216,900	\$5,807,099	\$4,222,801	\$11,157,990	\$15,380,791	26.0	76.8
2029	\$61,289,492	\$6,081,189	\$4,296,705	\$11,604,310	\$15,901,015	25.9	78.8
2030	\$63,434,624	\$6,367,352	\$4,370,609	\$12,068,482	\$16,439,091	25.9	80.9
2031	\$65,654,836	\$6,666,096	\$4,444,424	\$12,551,222	\$16,995,646	25.9	83.2
2032	\$67,952,755	\$6,977,953	\$4,518,051	\$13,053,271	\$17,571,322	25.9	85.6
2033	\$70,331,102	\$7,303,473	\$4,591,388	\$13,575,401	\$18,166,789	25.8	88.2
2034	\$72,792,690	\$7,643,232	\$4,664,323	\$14,118,417	\$18,782,740	25.8	91.0
2035	\$75,340,434	\$7,910,746	\$4,827,575	\$14,683,154	\$19,510,729	25.9	93.8
2036	\$77,977,350	\$8,187,622	\$4,996,540	\$15,270,480	\$20,267,020	26.0	96.9
2037	\$80,706,557	\$8,474,188	\$5,171,419	\$0	\$5,171,419	6.4	100.0
2038	\$83,531,286	\$8,770,785	\$5,352,418	\$0	\$5,352,418	6.4	100.0
2039	\$86,454,881	\$9,077,763	\$5,539,753	\$0	\$5,539,753	6.4	100.0
2040	\$89,480,802	\$9,395,484	\$5,733,644	\$0	\$5,733,644	6.4	100.0
2041	\$92,612,630	\$9,724,326	\$5,934,322	\$0	\$5,934,322	6.4	100.0
2042	\$95,854,072	\$10,064,678	\$6,142,023	\$0	\$6,142,023	6.4	100.0
2043	\$99,208,965	\$10,416,941	\$6,356,994	\$0	\$6,356,994	6.4	100.0
2044	\$102,681,279	\$10,781,534	\$6,579,489	\$0	\$6,579,489	6.4	100.0
2045	\$106,275,123	\$11,158,888	\$6,809,771	\$0	\$6,809,771	6.4	100.0
2046	\$109,994,753	\$11,549,449	\$7,048,113	\$0	\$7,048,113	6.4	100.0
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<sup>\*</sup> Calendar basis

<sup>\*\*</sup> Beginning of Fiscal Year

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#### GASB Statements No. 25, No. 27, No. 67 and No. 68

Effective for periods beginning after June 15, 1997, the Governmental Accounting Standards Board (GASB) requires the disclosure of pension related liabilities for public employer financial statements in accordance with Statements 25 and 27. These statements, which replace GASB Statement No. 5, must be adhered to by any public employee retirement system that follows Generally Accepted Accounting Principles (GAAP).

These disclosures are intended to establish a reporting framework that distinguishes between:

- current financial information about plan assets and financial activities,
- actuarially determined information from a long-term perspective,
- the funded status of the plan, and
- progress being made in accumulating sufficient assets to pay benefits when due.

Footnote disclosures required by GASB Statement No. 25 and 27 include a description of the plan, a summary of significant accounting policies, and information about contributions, legally required reserves, and investment concentrations. As a result of the oversight of the Public Employees Retirement Administration Commission (PERAC) and the conversion of unpaid contributions to pension related debt, the Net Pension Obligation (NPO) as required by Statement No. 27 will effectively always be equal to \$0. The required disclosure information is shown in Table VIII.

Table VIII				
		January 1, 2013	January 1, 2014	
(1)	Actuarial Accrued Liability	\$257,695,431	\$268,527,648	
(2)	Actuarial Value of Assets	<u>151,438,271</u>	163,680,899	
(3)	Unfunded Actuarial Accrued Liability	\$106,257,160	\$104,846,749	
(4)	Funded Ratio (2)/(1)	58.8%	61.0%	
(5)	Covered Payroll	\$35,211,907	\$37,863,532	
(6)	UAAL as a percentage of payroll: (3)/(5)	301.8%	276.9%	
(7)	Annual Required Contribution (ARC)	\$9,400,000	\$10,000,000	
(8)	Net Pension Obligation	\$0	\$0	

3.5%

Rate of Salary Increase:

# PERAC Annual Statement APPENDIX PAGE 3 - GASB NO. 25 & 27 ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by Sherman Actuarial Services as of January 1, 2013.

The normal cost for employees on that date was:	\$3,144,144	8.3% of pay
The normal cost for the employer was:	2,832,477	7.5% of pay
The actuarial liability for active members was:		\$130,534,678
The actuarial liability for retired and inactive members was:		137,992,970
Total actuarial accrued liability:		268,527,648
System assets as of that date:		163,680,899
Unfunded actuarial accrued liability:		\$104,846,749
The ratio of system's assets to total actuarial liability was		61.0%
The principal actuarial assumptions used in the valuation are as follows:		
Investment Return:		7.5%

## SCHEDULE OF FUNDING PROGRESS

Actuarial	Actuarial	Actuarial	Unfunded	Funded	Covered	UAAL
Valuation	Value	Accrued	Actuarial	Ratio	Payroll	as a percent
Date	of Assets	Liability	Accrued			of Covered
			Liability			Payroll
	(a)	(b)	(b-a)	(a/b)	(c)	(b-a)/c
01/01/14	\$163,680,899	\$268,527,648	\$104,846,749	61.0%	\$37,863,532	276.9%
01/01/13	151,438,271	257,695,431	106,257,160	58.8%	35,211,907	301.8%
01/01/10	150,489,230	233,827,870	83,338,640	64.4%	35,463,705	235.0%
01/01/08	149,580,056	216,373,833	66,793,777	69.1%	34,011,464	196.4%
01/01/06	129,336,285	199,132,315	69,796,030	64.9%	30,498,599	228.8%
01/01/03	116,873,389	180,515,405	63,642,016	64.7%	31,112,227	204.6%
01/01/01	110,396,557	161,786,782	51,390,225	68.2%	29,787,856	172.5%
01/01/98	84,451,719	138,357,249	53,905,530	61.0%	24,409,774	220.8%
01/01/96	63,223,198	111,671,213	48,448,015	56.6%	21,111,508	229.5%

#### GASB Statements No. 67 and No. 68

Effective for periods beginning after June 15, 2013, the Governmental Accounting Standards Board (GASB) requires the disclosure of pension related liabilities for public employer financial statements in accordance with Statements 25 and 27. These statements, which amend GASB Statements No. 25 and No. 27, must be adhered to by any public employee retirement system that follows Generally Accepted Accounting Principles (GAAP).

These disclosures are intended to establish a reporting framework that distinguishes between:

- current financial information about plan assets and financial activities,
- actuarially determined information from a long-term perspective,
- the funded status of the plan, and
- progress being made in accumulating sufficient assets to pay benefits when due.

The statement requires the system to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position. The statement of fiduciary net position presents the following items as of the end of the plan's reporting period, as applicable:

- Assets
- Deferred outflows of resources (consumption of net assets by the employers that is applicable to a future reporting period)
- Liabilities
- Deferred inflows of resources (acquisition of net assets by the employers that is applicable to a future reporting period)
- Fiduciary net position (Assets + Deferred outflows Liabilities Deferred inflows)

The system is considered a cost-sharing multiple-employer pension plan since pension obligations exist for employees of more than one employer and plan assets can be used to pay the benefits of the employees of any employer.

This report does not include all items required under GASB Statements No. 67 and No. 68. Rather, it provides all items required that are not readily available from other sources such as the Annual Statement of the Financial Condition prepared by the Board, Chapter 32 of the Massachusetts General Laws and investment reports prepared by the plan's investment consultant.

#### **Discount Rate**

The discount rate, and all other actuarial assumptions, are the as those described in Exhibit 6. The discount rate was selected based on a projection of employer and employee contributions, benefit payments, expenses and the long term expected rate of return on trust assets. Under Chapter 32 of the Massachusetts Laws, employers are required to make the necessary contributions to the trust such that the plan reaches a full funding status by 2040. In addition, Chapter 32 also gives the Retirement Board the right to go directly to the Assessors of the community and add an additional property tax to bills for amounts not paid by employer.

Based on these laws and assumptions, the pensions plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

The Board selected 7.50% as the long term expectation of investment returns. The average return for the 29 years ending as of December 31, 2013 was 9.16%. The average return for the past 5 years ending December 31, 2013 was 10.97%.

#### **Assets**

The Net Position Restricted for Pensions, shown in page 7, is \$100,572,952. The 2013 Annual Statement of the Financial Condition contains the values for previous years and the changes in Net Position Restricted for Pensions. Investments are reported at fair value.

#### Net Pension Liability as of December 31, 2013 – GASB Statement No. 67

The following presents the net pension liability of the system calculated using the discount rate of 7.50%, as well as what the system's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

	1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
Total Pension Liability	\$ 294,830,453	\$ 268,527,648	\$ 245,829,810
Plan Fiduciary Net Position	\$ 167,954,696	<u>\$ 167,954,696</u>	\$ 167,954,696
Net Pension Liability	\$ 126,875,757	\$ 100,572,952	\$ 77,875,114

The Plan Fiduciary Net Position as a percentage of the Total Pension Liability is 62.5%.

#### Net Pension Liability as of June 30, 2014 – GASB Statement No. 68

The following presents the net pension liability of the system calculated using the discount rate of 7.50%, as well as what the system's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

	1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
Total Pension Liability	\$ 310,461,056	\$ 272,566,694	\$ 258,334,959
Plan Fiduciary Net Position*	\$ 171,728,369	\$ 171,728,369	\$ 171,728,369
Net Pension Liability	\$ 138,732,687	\$ 100,838,325	\$ 86,606,590

<sup>\*</sup>Estimated

The Plan Fiduciary Net Position as a percentage of the Total Pension Liability is 63.0%.

## **Schedules of Required Supplementary Information**

	<u>2013</u>
Total Pension Liability – Beginning	n/a
Total Pension Liability – Ending (a)	\$ 268,527,648
Plan Fiduciary Net Position – Beginning	n/a
Plan Fiduciary Net Position – Ending (b)	\$ 167,954,696
Net Pension Liability – Ending (a) – (b)	\$ 100,572,952
Plan Fiduciary Net Positions as a percentage	
of the Total Pension Liability	62.5%
Covered-employee payroll	\$ 37,863,532
Net Pension Liability as a percentage of	
Covered-employee Payroll	265.6%

# **EXHIBITS**

P:\Medford\Val14\Report\[ACT1.XLS]Actives

#### Age/Service Distribution with Salary as of January 1, 2014

Attained Age	Average Salary <5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
< 20	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	16	0	0	0	0	0	0	0	0	16
	18,042	0	0	0	0	0	0	0	0	18,042
25-29	38	7	1	0	0	0	0	0	0	46
	37,402	51,102	42,256	0	0	0	0	0	0	39,592
30-34	25	16	3	0	0	0	0	0	0	44
	42,218	64,049	69,518	0	0	0	0	0	0	52,018
35-39	14	14	16	1	0	0	0	0	0	45
	31,004	68,632	65,051	46,590	0	0	0	0	0	55,163
40-44	9	6	10	22	3	0	0	0	0	50
	40,216	37,885	64,705	79,608	62,021	0	0	0	0	63,475
45-49	11	19	20	27	3	11	0	0	0	91
	44,681	33,375	52,160	74,956	73,063	82,714	0	0	0	58,480
50-54	14	20	20	15	6	21	11	0	0	107
	32,281	32,681	44,346	64,963	69,703	85,617	89,817	0	0	57,673
55-59	18	19	24	21	7	18	25	6	1	139
	28,086	27,217	50,793	53,911	52,731	82,635	93,761	67,308	68,048	57,887
60-64	6	8	8	9	10	20	13	13	1	88
	28,882	43,596	32,996	42,578	35,300	60,444	91,859	83,173	63,745	57,617
65-69	4	3	8	13	4	10	0	1	2	45
	45,039	28,970	39,808	56,358	46,122	43,487	0	44,890	80,634	47,638
70+	3	0	6	2	4	5	3	1	3	27
	24,228	0	27,752	31,250	34,197	44,081	58,556	51,313	56,643	39,103
Total Employees	158	112	116	110	37	85	52	21	7	698
Average Salary	34,408	42,957	50,317	64,606	50,456	71,287	90,420	75,300	66,141	54,246

P:\Medford\Val14\Report\[RET1.XLS]Retirees

#### Retiree Distribution as of January 1, 2014

	Number of Employees		Total				
Attained Age	Male	Female	Total	Male	Female	Total	
< 20	0	0	0	0	0	0	
20-24	0	0	0	0	0	0	
25-29	0	0	0	0	0	0	
30-34	0	0	0	0	0	0	
35-39	0	0	0	0	0	0	
40-44	0	0	0	0	0	0	
45-49	1	1	2	41,525	37,601	79,125	
50-54	1	1	2	12,012	15,451	27,463	
55-59	7	6	13	274,730	112,593	387,323	
60-64	25	20	45	1,162,892	385,501	1,548,393	
65-69	31	25	56	1,480,930	418,287	1,899,217	
70-74	34	37	71	1,173,239	675,442	1,848,681	
75-79	34	35	69	1,171,777	754,754	1,926,531	
80-84	37	40	77	1,046,279	599,005	1,645,284	
85-89	40	43	83	946,434	466,186	1,412,620	
90-94	9	28	37	154,950	315,239	470,189	
95+	0	12	12	0	93,239	93,239	
otal	219	248	467	7,464,769	3,873,295	11,338,064	
verage (Age/Payment)	75.93	79.11	77.62	34,086	15,618	24,279	
requency Percent	46.9	53.1	100.0	65.8	34.2	100.0	

#### Disabled Retiree Distribution as of January 1, 2014

	Number of Employees			Total			
Attained Age	Male	Female	Total	Male	Female	Total	
< 20	0	0	0	0	0	0	
20-24	0	0	0	0	0	0	
25-29	0	0	0	0	0	0	
30-34	0	0	0	0	0	0	
35-39	0	0	0	0	0	0	
40-44	0	0	0	0	0	0	
45-49	3	0	3	104,309	0	104,309	
50-54	6	1	7	262,293	57,658	319,951	
55-59	9	1	10	393,890	38,596	432,485	
60-64	17	0	17	647,360	0	647,360	
65-69	26	1	27	1,179,061	17,949	1,197,010	
70-74	17	1	18	595,100	16,014	611,115	
75-79	14	2	16	489,066	40,544	529,610	
80-84	8	0	8	198,551	0	198,551	
85-89	5	0	5	120,935	0	120,935	
90-94	2	0	2	58,518	0	58,518	
95-99	0	0	0	0	0	0	
otal	107	6	113	4,049,083	170,760	4,219,844	
average (Age/Payment)	69.2	67.9	69.1	37,842	28,460	37,344	
Frequency Percent	94.7	5.3	100.0	96.0	4.0	100.0	

# **EXHIBIT 4 - CASHFLOW FORECAST:**

The following is a 30 year forecast of benefit payments net of state reimbursable COLA payments, Contribution Income and Investment Returns.

Plan Year Ending	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	Net change in plan assets
2014	\$17,829,819	\$3,144,144	\$10,000,000	\$12,233,948	\$7,548,273
2015	19,006,450	3,299,485	10,500,000	12,314,885	7,107,920
2016	20,115,788	3,461,849	11,000,000	12,827,994	7,174,055
2017	21,086,362	3,631,536	11,500,000	13,350,719	7,395,893
2018	22,078,111	3,808,861	11,980,232	13,887,356	7,598,338
2019	22,967,856	3,994,150	12,385,932	14,436,866	7,849,092
2020	23,753,227	4,187,743	12,805,717	15,009,593	8,249,826
2021	24,345,198	4,389,995	13,240,084	15,620,089	8,904,970
2022	24,963,634	4,601,274	13,602,375	16,276,696	9,516,712
2023	25,431,283	4,821,965	13,474,964	16,969,923	9,835,569
2024	25,874,444	5,052,468	13,929,594	17,705,949	10,813,566
2025	26,220,199	5,293,199	14,399,788	18,519,578	11,992,366
2026	26,561,872	5,544,593	14,877,819	19,422,209	13,282,748
2027	26,907,998	5,807,099	15,380,791	20,422,432	14,702,325
2028	27,258,634	6,081,189	15,901,015	21,529,715	16,253,285
2029	27,613,839	6,367,352	16,439,091	22,753,940	17,946,545
2030	27,973,673	6,666,096	16,995,646	24,105,812	19,793,881
2031	28,338,195	6,977,953	17,571,322	25,596,921	21,808,000
2032	28,707,468	7,303,473	18,166,789	27,239,809	24,002,604
2033	29,081,553	7,643,232	18,782,740	29,048,051	26,392,471
2034	29,460,512	7,910,746	19,510,729	31,032,574	28,993,538
2035	29,844,410	8,187,622	20,267,020	33,212,751	31,822,984
2036	30,233,310	8,474,188	5,171,419	35,113,783	18,526,080
2037	30,627,277	8,770,785	5,352,418	36,490,450	19,986,376
2038	31,026,379	9,077,763	5,539,753	37,976,510	21,567,647
2039	31,430,681	9,395,484	5,733,644	39,581,037	23,279,483
2040	31,840,252	9,724,326	5,934,322	41,313,820	25,132,216
2041	32,255,160	10,064,678	6,142,023	43,185,430	27,136,971
2042	32,675,474	10,416,941	6,356,994	45,207,266	29,305,727
2043	33,529,506	10,781,534	6,579,489	47,375,859	31,207,376

## EXHIBIT 5 – SUMMARY OF PLAN PROVISIONS:

This summary is prepared in accordance with Chapter 32 as of January 1, 2014, and does not take into account any subsequent changes.

#### 1. Administration

Each of the 107 contributory retirement systems for public employees of the Commonwealth of Massachusetts are guided by the applicable provisions of Chapter 32 of the Massachusetts General Laws and other applicable statutes. Although these boards operate semi-independently, there is a uniform set of rules governing benefits, eligibility, contributions, financing, and accounting.

#### 2. Participation

Participation is mandatory for all full-time employees whose employment commences prior to age 65. Eligibility with respect to part-time, professional, temporary, or intermittent employment is governed by the local board. Membership is optional for certain elected officials, State officials appointed by the Governor, and certain hospital interns.

There are four classes of membership as follows:

- (i) Group 1: Most general employees in State and local government
- (ii) Group 2: Certain specified hazardous duty positions
- (iii) Group 3: State police officers and inspectors
- (iv) Group 4: Local police officers, firefighters, and designated employees of the municipal light department.

For members in more than one group, participation will be proportional.

Chapter 176 of the Acts of 2011 created different plan provisions within these groups for those hired on or after April 2, 2012.

#### 3. Salary

Salary is defined as gross regular compensation. Salary <u>does not</u> include bonuses, overtime, severance pay, unused sick leave credit, or other similar compensation.

#### 4. Member Contributions

Member contributions vary depending upon date hired as follows:

Member					
<b>Date of Hire</b>	<b>Contribution Rate</b>				
Prior to 1975	5.0% of Salary				
1975 to 1983	7.0% of Salary				
1984 to 1996	8.0% of Salary				
1996 and Later plus	9.0% of Salary				
1979 and Later	2.0% of Salary in excess of \$30	0,000			

For Group 1 employees who become members on or after April 2, 2012, the Contribution Rate shall be 6% after the completion of 30 years of service.

#### 5. Average Salary

Average salary is used to determine a participant's benefit. It is defined as the average salary during the three consecutive-year period that produces the highest average. (Alternatively, if a greater amount results, it is the average rate of salary earned during the period or periods, whether or not consecutive, that constitutes the last three years preceding retirement.). For employees who become members on or after April 2, 2012, the averaging period shall be five years.

#### 6. <u>Creditable Service</u>

In general, creditable service is awarded during the period in which a member contributes to the retirement system.

## 7. Service Retirement

#### a. Eligibility:

For an employee to be eligible for service retirement (also referred to as superannuation), one of the following conditions must be met:

- (i) completion of 20 years of service
- (ii) for an employee hired prior to January 1, 1978, attainment of age 55 as an active member
- (iii) for an employee hired on or after January 1, 1978, attainment of age 55 as an active member and completion of ten years of service
- (iv) for a Group 1 employee hired on or after April 2, 2012, attainment of age 60 and completion of ten years of service

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## b. Benefit Amount:

The retirement allowance is determined as a product of the participant's Benefit Rate times Average Salary times Creditable Service, where Benefit Rate is determined from the following table for those hired prior to April 2, 2012:

Age at	Percentage of Average Salary				
<u>Retirement</u>	Group 1	Group 2	Group 4		
65 or Over	.025	.025	.025		
64	.024	.025	.025		
63	.023	.025	.025		
62	.022	.025	.025		
61	.021	.025	.025		
60	.020	.025	.025		
59	.019	.024	.025		
58	.018	.023	.025		
57	.017	.022	.025		
56	.016	.021	.025		
30	.010	.021	.025		
55	.015	.020	.025		
54	.014	.014	.024		
53	.013	.013	.023		
52	.012	.012	.022		
51	.011	.011	.021		
	0.4.0				
50	.010	.010	.020		
49	.009	.009	.019		
48	.008	.008	.018		
47	.007	.007	.017		
46	.006	.006	.016		
45	.005	.005	.015		
43 44					
	.004	.004	.004		
43	.003	.003	.003		
42	.002	.002	.002		
41	.001	.001	.001		

For those hired after April 1, 2012 who retire with less than 30 years of service, the following rates are applied:

Age at	Percentage of Average Salary				
<u>Retirement</u>	Group 1	Group 2	Group 4		
67 or Over	.0250	.0250	.0250		
66	.0235	.0250	.0250		
65	.0220	.0250	.0250		
64	.0205	.0250	.0250		
63	.0190	.0250	.0250		
62	.0175	.0250	.0250		
61	.0160	.0235	.0250		
60	.0145	.0220	.0250		
59		.0205	.0250		
58		.0190	.0250		
57		.0175	.0250		
56		.0160	.0235		
55		.0145	.0220		
54		.0143	.0225		
53			.0203		
33			.0190		
52			.0175		
51			.0160		
50			.0145		

For those hired after April 1, 2012 who retire with at least 30 years of service, the following rates are applied:

Age at	Percer	Percentage of Average Salary			
Retirement	Group 1	Group 2	Group 4		
	0.4.7.0.0	0.5.00	0.5.7.0.0		
67 or Over	.02500	.02500	.02500		
66	.02375	.02500	.02500		
65	.02250	.02500	.02500		
64	.02125	.02500	.02500		
63	.02000	.02500	.02500		
60	01077	02500	02500		
62	.01875	.02500	.02500		
61	.01750	.02375	.02500		
60	.01625	.02250	.02500		
59		.02125	.02500		
58		.02000	.02500		
57		.01875	.02500		
56		.01750	.02375		
55		.01625	.02250		
54			.02125		
53			.02000		
52			.01875		
51			.01750		
50			.01625		

#### 8. <u>Deferred Vested Retirement</u>

#### a. <u>Eligibility</u>:

A participant who has completed ten or more years of creditable service is eligible for a deferred vested retirement benefit. If termination is involuntary, the participant is vested after six years.

#### b. Benefit Amount:

The participant's accrued benefit is payable commencing at age 55, or may be deferred until later at the employee's option.

#### c. Refund of Contributions:

In lieu of the deferred pension benefit, a member may elect to receive a refund of their accumulated contributions. Members with ten or more years of service are entitled to 100% of the credited interest on their contributions. Members with five to ten years of service are entitled to 50% of the credited interest on their contributions. No credited interest is provided for members with less than five years of service.

#### 9. Accidental Disability

#### a. Eligibility:

Participants are eligible for an accidental disability benefit, regardless of service or age, if they become permanently and totally incapacitated for further duty as a result of personal injury sustained while in the performance of duties.

#### b. Benefit Amount:

The accidental disability amount is 72% of annual salary plus \$450 per year for each child plus an additional annuity based upon accumulated Member Contributions with credited interest.

#### 10. Ordinary Disability

#### a. Eligibility:

An ordinary disability occurs when a member becomes permanently and totally disabled due to sickness or injury that is not job related. In order to be eligible for an ordinary disability benefit, a member must have ten years of service (and be less than age 55 or age 60 if hired on or after April 2, 2012).

#### b. <u>Benefit Amount</u>:

The ordinary disability amount is equal to the accrued retirement benefit as if the member were age 55 (age 60 if hired on or after April 2, 2012). If the member was a veteran, the benefit is 50% of the member's final rate of Salary during the preceding 12 months, plus an annuity based upon accumulated Member Contributions plus credited interest. If the participant is over age 55 (age 60 if hired on or after April 2, 2012), he

will receive not less than the superannuation allowance to which he is entitled.

#### 11. <u>Survivor Benefits</u>

#### a. <u>Occupational Death</u>:

The survivors of a member who dies due to an occupational injury will be entitled to a lump sum return of contributions plus a pension benefit equal to 72% of the participant's annual Salary.

#### b. Non-Occupational Death:

Upon the death of a member other than due to an occupational injury, the designated beneficiary will be entitled to a retirement benefit as if Option C had been elected with a minimum of \$250 per month to the surviving spouse, plus \$120 for the first child, plus \$90 for each additional child. If no beneficiary is designated and if the employee worked two years, and is married at least one year, the spouse may elect benefits. If there is no designated beneficiary or surviving spouse, then member contributions are returned. If there are dependent children but no surviving spouse, they may elect minimum survivor benefits of \$250 per month plus \$120 for the first child and \$90 for each additional child.

#### c. Refund of Contributions:

Upon the death of a member not entitled to survivor benefits, the beneficiary is entitled to a refund of all member contributions with interest.

#### 12. <u>Cost-of-Living Increases</u>

In accordance with the adoption of Chapter 17 of the Acts of 1997, the granting of a cost-of-living adjustment will be determined by an annual vote by the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3.0%, beginning on July 1. All retirees, disabled retirees, and beneficiaries who have been receiving benefits payments for at least one year as of July 1 are eligible for the adjustment. The maximum amount of pension benefit subject to a COLA is \$16,000. All COLAs granted to members after 1981 and prior to July 1, 1998 are deemed to be an obligation of the State and are not the liability of the Retirement System.

#### 13. Postretirement Death Benefits

Any benefits following the death of a member after retirement are based upon the form of benefit the participant elected at the time of retirement. There are three available forms as follows:

- (i) Option A Life annuity
- (ii) Option B Life annuity with death benefit equal to excess of member contributions plus credited interest to retirement over annuity benefit paid to member
- (iii) Option C Life annuity with 66-2/3% of benefit continued after death of member to designated joint annuitant

# EXHIBIT 6 – ACTUARIAL METHODS AND ASSUMPTIONS:

The actuarial cost method, factors, and assumptions used in determining cost estimates are presented below.

#### 1. Member Data

The member data used in the determination of cost estimates consist of pertinent information with respect to the active, inactive, retired, and disabled members of the employer as supplied by the employer to the actuary.

#### 2. Valuation Date

January 1, 2014.

#### 3. Actuarial Cost Method

The costs of the Plan have been determined in accordance with the individual entry age normal actuarial cost method.

#### 4. Rate of Investment Return

It is assumed that the assets of the fund will accumulate at a compound annual rate of 7.5% per annum.

#### 5. Salary Scale

It is assumed that salaries including longevity will increase at a rate of 3.5% per year.

#### 6. Cost-of-Living Increases

Cost-of-living increases have been assumed to be 3.0% of the lesser of the pension amount and \$16,000 per year.

## 7. <u>Value of Investments</u>

Assets held by the fund are valued at market value as reported by the Public Employees' Retirement Administration Commission (PERAC). The actuarial value of assets is

determined using a five-year smoothing of asset returns greater than or less than the assumed rate of return.

## 8. Annual Rate of Withdrawal Prior to Retirement

Based on an analysis of experience, the assumed annual rates of withdrawal may best be illustrated by the following rates at the following ages:

<u>Service</u>	General <u>Employees</u>	Police and Fire Employees
0	0.1500	0.0150
10	0.0540	0.0150
20	0.0200	0.0000
30	0.0000	0.0000

## 9. Annual Rate of Mortality

It is assumed that both pre-retirement and post retirement mortality are represented by the RP-2000 Mortality Table for males and females, adjusted to 2015 with Scale AA. Mortality for disabled members is represented by the RP-2000 Mortality Table set forward two years for all disabled members.

## 10. Service Retirement

Based on an analysis of experience, the assumed annual retirement rates are illustrated at the following ages for those hired prior to April 2, 2012:

	Male	Female	Male and Female
	General	General	<b>Police and Fire</b>
<u>Age</u>	<b>Employees</b>	<b>Employees</b>	<b>Employees</b>
50	0.0100	0.0150	0.02000
51	0.0100	0.0150	0.02000
52	0.0100	0.0200	0.02000
53	0.0100	0.0250	0.05000
54	0.0200	0.0250	0.07500
55	0.0200	0.0550	0.15000
56	0.0250	0.0650	0.10000
57	0.0250	0.0650	0.10000
58	0.0500	0.0650	0.10000
59	0.0650	0.0650	0.15000
60	0.1200	0.0500	0.20000
61	0.2000	0.1300	0.20000
62	0.3000	0.1500	0.25000
63	0.2500	0.1250	0.25000
64	0.2200	0.1800	0.30000
65	0.4000	0.1500	1.00000
66	0.2500	0.2000	1.00000
67	0.2500	0.2000	1.00000
68	0.3000	0.2500	1.00000
69	0.3000	0.2000	1.00000
70	1.0000	1.0000	1.00000

Based on an analysis of experience, the assumed annual retirement rates are illustrated at the following ages for those hired on or after April 2, 2012:

	Male General	Female General	Male and Female Police and Fire
Age	<b>Employees</b>	<b>Employees</b>	Employees
50	0.0000	0.0000	0.0100
51	0.0000	0.0000	0.0100
52	0.0000	0.0000	0.0200
53	0.0000	0.0000	0.0200
54	0.0000	0.0000	0.0200
55	0.0000	0.0000	0.0500
56	0.0000	0.0000	0.0750
57	0.0000	0.0000	0.1500
58	0.0000	0.0000	0.1000
59	0.0000	0.0000	0.1000
60	0.0500	0.0650	0.1000
61	0.0650	0.0650	0.1500
62	0.2000	0.1500	0.2000
63	0.2000	0.1300	0.2000
64	0.3000	0.1500	0.3000
65	0.2500	0.1250	1.0000
66	0.2200	0.1800	1.0000
67	0.4000	0.2500	1.0000
68	0.3000	0.2000	1.0000
69	0.3000	0.2000	1.0000
70	1.0000	1.0000	1.0000

#### 12. Annual Rate of Disability Prior to Retirement

Based on an analysis of experience, the assumed annual rates of disability may best be illustrated by the following probabilities at the following ages:

Attained <u>Age</u>	General <u>Employees</u>	Police and Fire Employees
20	0.0001	0.0010
30	0.0003	0.0030
40	0.0010	0.0030
50	0.0019	0.0125

In addition, it is assumed for the general employees that 45% of all disabilities are ordinary (55% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).

#### 13. Family Composition

It is assumed that 80% of all members will be survived by a spouse and that females (males) are three years younger (older) than members.

#### 14. Administrative Expenses

The normal cost is increased by an amount equal to the anticipated administrative expenses for the upcoming fiscal year. The amount for fiscal year 2014 is \$325,000 and is anticipated to increase at 3.5% per year.

## EXHIBIT 7 – GLOSSARY OF TERMS:

This glossary summarizes the technical terms contained in this report.

#### 1. Actuarial Accrued Liability

That portion of the Actuarial Present Value of plan benefits that is not provided for by future employer Normal Costs or employee contributions.

#### 2. <u>Actuarial Assumptions</u>

Assumptions as to the occurrence of future events affecting the Retirement System such as:

- Rates of investment returns
- Increases in a member's salary
- Inflation
- The probability of mortality, turnover, disablement
- Retirement at each age and other relevant items

#### 3. Actuarial Cost Method

A procedure for allocating the Actuarial Present Value of pension plan benefits between Normal Cost and Actuarial Accrued Liability.

#### 4. Actuarial Present Value

The single sum amount required at the valuation date that is required to provide for anticipated future events based upon the terms of the plan and the Actuarial Assumptions.

#### 5. Forecast

A projection of future benefit payments or contribution requirements based upon the terms of the plan, the current asset amounts, the Actuarial Assumptions, and additional assumptions as to the replacement of terminating employees with new employees.

#### 6. Normal Cost

That portion of the Actuarial Present Value of future benefits that is assigned to the current year.

## 7. <u>Unfunded Actuarial Accrued Liability</u>

That portion of the Actuarial Accrued Liability that is not provided for by current actuarial value of assets.

#### 8. Valuation Method

The method used to divide the cost of future benefits among the Actuarial Accrued Liability, the current year's Normal Costs, and future years' Normal Costs. The resulting current funding requirement is then determined as the current year's Normal Cost plus the payment necessary to amortize the Unfunded Actuarial Liability.

#### 9. Vested Liability

That portion of the Actuarial Present Value of Accrued Benefits that a member would be entitled to if the member terminated employment with the employer as of the valuation date.

## **CERTIFICATION:**

This report fairly represents the actuarial position of the City of Medford Retirement System contributing as of January 1, 2014, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. In our opinion, the actuarial assumptions used to compute actuarial accrued liability and normal cost are reasonably related to plan experience and to reasonable expectations, and represents our best estimate of anticipated plan experience.

Sherman Actuarial Services, LLC

Daniel W. Therman

Daniel W. Sherman, ASA, MAAA

Enrolled Actuary No. 11-4086

April, 2014

# **BREAKOUTS**

 $H: \label{lem:hedford} \\ H: \label{lem:hedford} Medford 14\_Val.xlsm] Breakouts$ 

# **Breakouts**

	<u>Total</u>	All Others	Housing	Water and Sewer
(1) Participants				
(a) Actives	698	637	39	22
(b) Inactives	99	93	3	3
(c) Retirees	403	364	20	19
(d) Disabled Retirees	<u>111</u>	<u>100</u>	<u>6</u>	<u>5</u>
(e) Total	1,374	1,194	68	49
(2) Payroll of Active Participants	\$37,863,532	\$34,627,429	\$2,013,761	\$1,222,342
(3) Percentage of Payroll	100.00%	91.45%	5.32%	3.23%
(4) Accrued Liability	\$268,527,648	\$260,882,878	\$3,840,130	\$3,804,640
(5) Assets	\$163,680,899	\$159,021,033	\$2,340,749	\$2,319,116
(6) Unfunded Accrued Liability	\$104,846,749	\$101,861,845	\$1,499,381	\$1,485,524
(7) Employee Normal Cost	\$3,144,144	\$2,874,256	\$166,219	\$103,669
(8) Employer Normal Cost	\$2,832,477	\$2,621,413	\$149,134	\$61,930
(9) Administrative Expenses*	\$325,000	\$315,748	\$4,648	\$4,605
(10) Appropriation				
(a) ERI & Pension Holiday	390,166	382,235	7,931	0
(b) Remaining Amortizations	6,401,863	5,970,677	340,481	90,705
(c) Employer Normal Cost	2,832,477	2,619,903	150,644	61,930
(d) Administrative Expenses*	325,000	303,110	<u>17,285</u>	<u>4,605</u>
(e) Total	9,949,506	9,275,924	516,342	157,240
(11) Fiscal 2015 Cost	\$10,000,000	9,323,000	518,962	158,038
(12) Fiscal 2016 Cost	\$10,500,000	9,789,150	544,910	165,940
(13) Percentage of Total Cost	100.00%	93.23%	5.19%	1.58%

<sup>\*</sup> Allocation is based on the ratio of Accrued Liability to Total Accrued Liability.